

Homework for test 4

Chapter 6.

Problems: 31, 37, 47, 49, 51, 55, 57, 63, 67, 73, 64, 75, 77, 81, 83, 84, 85, 86, 87

Chapter 8.

Problems: 31, 33bcd, 34 bcef, 37, 41, 49, 50, 55, 59a, 61, 63, 65c, 66c, 67, 68, 83, 85, 87, 89, 99, 104, 107, 108, 113

Extra Problems:

1. Given a 6.00 M solution of HCl, describe how you would make 11.0 liters of a 0.100 M solution of HCl?
2. Describe how you would make 6.0 liters of a 0.60 M solution of sodium hydroxide (NaOH) using solid sodium hydroxide.

Chapter 9.

Problems: 37-49 odd, 50, 51, 52, 55, 57, 59, 67, 68, 69-83 odd, 87, 103, 105, 117

Extra Problems:

1. Please complete the following table. If given the pH, please provide the hydrogen ion concentration (or hydronium ion concentration).

	[H ⁺] or [H ₃ O ⁺]	pH	[OH ⁻]	pOH
0.00100 M HCl	0.0100 M			
0.100 M NH₃		8.26		

2. What are the products of the following reactions and which way does the equilibrium lie?

